

S/120/61/000/004/011/034

E192/E382

Instrument for the measurement

their capacity is 2^{17} pulses each. In the interrogation circuit the information relating to the state of the binary circuits is obtained by means of diodes which are controlled by a voltage drop developed across a portion of their anode resistance. The switching circuit is in the form of a trigger circuit supplied from a negative source. A portion of the anode voltage of each triode of the switching circuit is used for opening the diodes which transmit the pulses from the quartz oscillator to the counters. The instrument was tested while measuring the time intervals up to 9999 \pm 0.01 μ sec. The maximum error in the measurements did not exceed 1 μ sec. When necessary, it was possible to increase the accuracy of the instrument to \pm 0.1 μ sec. On the basis of the above instruments, the authors also designed a new device permitting measurement of 40 time intervals with an error of \pm 0.02 μ sec, the maximum

measured interval being 10^4 μ sec. The authors express their gratitude to G.V. Dobrevol'skiy for building the oscillographic part of the instrument and to M.M. Vakhrameyev for carrying out the wiring work.

Card 4/94

9,6000

9,5400


37787
S/120/62/000/002/018/047
E192/E382

AUTHORS: Pelykh, N.A., Pronyushkin, A.V., Golovkov, V.P. and Dobrovol'skiy, G.V.

TITLE: An instrument for high-accuracy measurement of time intervals

PERIODICAL: Pribery i tekhnika eksperimenta, no. 2, 1962, 76 - 80

TEXT: The instrument described (type ИВМ-4 (IVI-4)) was designed on the principle adopted in an earlier device (Ref. 2 - N.A. Pelykh, A.V. Pronyushkin - PTE, no. 4, 1961, 83). The high relative accuracy of this instrument is due to the use of an oscillator and an electronic counter. The counter and the interrogation circuits are of the same type as those used in the earlier instrument. The high absolute accuracy of the instrument is due to the use of an oscillograph system. The instrument employs a two-ray tube, type 18J047 (18L047). When an input pulse appears, the horizontal time bases 1 and 2 are actuated and when these return to their rest position the vertical time base is triggered. The number of lines on Card 1/4



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An instrument for

the screen of the tube is therefore equal to the number of input pulses. One input pulse is recorded on each line of the time base 1. Simultaneously, timing pulses from a quartz-crystal oscillator working at 1 Mc/s and an interrogation pulse corresponding to the given input pulse are applied to this time base; the interrogation pulse is situated at the mid-point between two neighbouring pulses of the quartz-crystal oscillator. The time base 2 is used for registering the number of timing pulses received during the interval between two neighbouring interrogation pulses; the timing pulses are recorded in a binary code. The instrument comprises a special circuit which synchronously switches off the counter during three periods of the crystal oscillator; this circuit made it possible to use one counter instead of two. The counter continuously counts the pulses from the crystal oscillator before the appearance of the first pulse. However, when an input pulse appears, the time base 1 and a gating pulse generator are triggered, the gating generator producing a positive pulse of 1.5 μ s duration. This pulse is applied to a coincidence circuit which transfers

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one or two timing pulses during 1.5 μ s. The coincidence output pulse is applied to a 0.5 μ s delay line and then actuates a switching univibrator which closes the counter for the duration of three timing pulses. This time interval is sufficient for reading or interrogating the counter and recording its count. The front of the switch-off pulses is delayed by 1 μ s and then used to actuate a blocking oscillator which triggers an interrogation circuit and the time base 2. The state of the counter is indicated at the output of the interrogation circuit in the form of a train of pulses and these are applied to the vertical deflection plates of the tube and are recorded on the time base 2. The first line records a random number corresponding to the state of the counter at the instant of the appearance of the input pulse. The input pulse with a delay of 0.5 μ s is applied to the time base 1; the interrogation pulse and the 1 Mc/s time markers are also applied to this time base through a mixer. The interrogation pulse is introduced into the time base 1 in order to eliminate the ambiguity during ± 1 period of the quartz-crystal oscillator.

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An instrument for ...

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When the unblanking pulse of the time base 2 is terminated the vertical time base is actuated and the rays are shifted vertically by one step. The process is repeated during the appearance of the next pulse at the input. A block diagram of the instrument is given and its operation is illustrated by a number of wave forms. The instrument permits measurement of the individual time intervals with an accuracy of $\pm (0.02 \mu s + 10^{-6} t_m)$, where t_m is the measured time interval; 10^{-6} represents the short-term instability of the quartz crystal. The maximum number of measured intervals is 40. There are 6 figures and 1 table.

SUBMITTED: May 4, 1961

Card 4/4

SHULEPOV, S.V.; OSHCHEPKOVA, N.V.; SUKHORUKOV, I.F.; RODIONOV, S.G.;
PRONYUSHKINA, M.V.

Microstructure defects of artificial graphite. Izv.AN SSSR.Neorg.
mat. 1 no.7:1005-1009 J1 '65. (MIRA 18:9)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut elektrodnoy
promyshlennosti.

L 2789-66 EWP(e)/EWT(m)/EPF(c)/EWP(i)/T/EWP(t)/EWP(k)/EWP(b)/EWA(c)
IJP(c) JD/WW/HW/WH

ACCESSION NR: AP5022245

UR/0363/65/001/007/1005/1009
546.26-162:539

AUTHOR: Shulepov, S. V.; Oshchepkova, N. V.; Sukhorukov, I. F.; Rodionov, S. G.;
Pronyushkina, M. V.

TITLE: Defects of the microstructure of synthetic graphite /5

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 7, 1965,
1005-1009

TOPIC TAGS: graphite, carbon product

ABSTRACT: The purpose of the work was a microscopic study of fine- and medium-grained hot-extruded graphite and the determination of the microstructural defects and their influence on the basic physicomachanical properties of the material. Electrode material, "green" and heat treated electrode blanks, and graphitic carbon materials produced by domestic electrode plants were investigated. Defects in the form of conglomerates, i.e., round masses with a circular particle orientation, were observed in all the samples. The properties of the uniform material and material containing conglomerates are compared. It is found that the density does not determine the quality of the microstructure and remains

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L 2789-66

ACCESSION NR: AP5022245

practically constant at 1.6-1.7 g/cm³. The compressive strength of the uniform material is 25-30% higher than that of the material with conglomerates (350 and 475 kg/cm², respectively); the oxidizability of the uniform material during 2 hr at 700C is 28.5%, and its pulverization during physical vacuum tests almost 20% less than that of the material with conglomerates. The microstructural defects observed are stable and do not disappear as the extrusion temperature and pressure are raised, and disturb the isotropy of the properties of the material. An interpretation of the mechanism of defect formation is given. Orig. art. has: 3 figures.

ASSOCIATION: Gosudarstvennyy nauchno-issledovatel'skiy institut elektrodnoy promyshlennosti (State Scientific Research Institute of the Electrode Industry)

SUBMITTED: 07Jan65

ENCL: 00

SUB CODE: MT

NO REF SOV: 004

OTHER: 000

Card

2/2 *md*

1 R Z... P.A.
BRODSKAYA, I.A.; PRONZELEV, P.A.

Development of abscess in a cerebral tumor. Vop.neirokhir.19
no.4:56-57 .11-Ag '55. (MLRA 8:10)

1. Iz Instituta neyrokhirurgii Ministerstva zdravookhraneniya
USSR

(BRAIN, neoplasms,
intratumoral abscess)

(ABSCISS,
brain, intratumoral)

(BRAIN, abscess,
intratumoral)

ZOZULYA, Yu.A.; PRONZELEV, P.A.

Unoxidized products in the urine of patients with brain tumors of
varying histostucture. Probl.neirokhir. 4:209-222 '59. (MIRA 13:11)
(OXIDATION, PHYSIOLOGICAL)
(BRAIN--TUMORS)

ZOZULYA, Yu.A. [Zozulia, IU.O.]; PRONZELEV, P.A. [Pronzeliev, P.O.]

Change of oxidation processes following brain operations. Fiziol.
zhur. [Ukr.] 7 no.1:107-112 Ja-F '61. (MIRA 14:1)

1. Ukrainian Research Institute of Neurosurgery, Kiev.
(BRAIN—SURGERY) (OXIDATION, PHYSIOLOGICAL)

PEDACHENKO, G.A.; PRONZELEV, I.A.

Basic metabolism and indexes of external respiration in brain tumors
of varying histostructure. Probl.neirokhir. 4:241-246 '59. (MIRA 13:11)
(BRAIN--TUMORS)
(RESPIRATION)
(METABOLISM)

ZOZULYA, Yu.A. [Zozulia, IV.O] ~~PRONZELIEV, P.A.~~ [Pronzeliev, P.O.]

Disorders in oxidation processes in patients with brain tumors
Report No.1, [with summary in English]. Fiziol.zhur. Ukr.
4 no.5:688-695 S-O '58 (MIRA 11:11)

1. Ukrainskiy nauchno-issledovatel'skiy institut neyrokhirurgii,
Kiyev.

(BRAIN--TUMORS)
(OXIDATION, PHYSIOLOGICAL)

PROOBRAZENSKIJ, N. A.

"Sur la synthese de Hess de l'arecaidine et de l'arecaline." by Proobrazenskij, N. A.
and Fischer, L. B. (p 140)

SO: Journal of General Chemistry (Zhurnal Obshchei Khimii) 1941, vol 11, no 1.

COUNTRY : Rumania
CATEGORY :

M-5

ABS. JOUR. : RZBiol., No. 19 1958, No. 87076

AUTHOR : Proorocu, N.; Angelescu, H.; Streauga, P.
INST. : Rumanian Academy

TITLE : New Lines of Annual Pepper Developed at the
Tiganesti Experiment Station.

ORIG. PUB. : Comun. Acad. RPR, 1957, 7, No 8, 715-719

ABSTRACT : At the vegetables experiment station in Tiganesti (Rumania), by continued selection of plants and fruit since 1950, were obtained a number of lines of the annual pepper De Tiganesti, among which, on selection plots and in preliminary trials of yields, early maturation quality of fruit, and resistance to diseases, lines 111B and 102A were found to be outstanding.

M. V. Dranishnikov.

CARD: //

PROOROCEANU, V., ing.

Improved assembling of connection and derivation sleeves
for power cables 1-15 kV with aluminum conductors. Ener-
getica Rum 11 no.12:634-638 D'63.

PROPASTIN, G. N., CAND MED SCI, "KINESITHERAPY IN PRE-
AND POST-OPERATIONAL PERIODS IN GASTRIC AND DUODENAL UL-
CERS." MOSCOW, 1960. (STATE SCI RES INST OF HEALTH RE-
SORT SCIENCE AND PHYSIOTHERAPY). (KL, 2-61, 219).

-273-

PROPASTIN, G.N., kand. med. nauk (Yaroslavl', Grazhdanskaya ul., d.17-a,
korp.2, kv. 60)

Effect of gymnastic exercises on the motor function of the stomach
in peptic ulcer patients. Vest. Khir. 91 no.10:74-77 0 '63.

(MIRA 17:7)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (zav. - prof. V.P.
Mateshuk) Yaroslavskogo meditsinskogo instituta i kafedry lechebnoy
fizicheskoy kul'tury i vrachebnogo kontrolya (zav. kafedroy -
prof. V.N. Moshkov) Tsentral'nogo instituta usovershenstvovaniya
vrachey.

PROPASTINA, G. S., Cand Tech Sci -- (diss) "Development and application of relaxation method to the calculation of the durability, stability, and oscillations of plates." Kiev, 1958. 14 pp; (Ministry of Higher Education Ukrainian SSR, Kiev Construction Engineering Inst); 150 copies; free; (KL, 19-60, 135)

BIII-1
Agriculture

Use of newer growth-substances in vegetative propagation. E. Gubányi and A. Prohász (Bull. Fac. Hort. Budapest, 1949, 18, 209-214; Hort. 7000, 1950, 20, 315).—Good results in the rooting of vine and ornamental tree and shrub cuttings were obtained by treatment with aq. 0.002-0.008% CrO_3 . The treatment also stimulated seed germination. A. G. POLLARD

CA

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

9

The substitution of manganese steel for chromium-vanadium wire for springs. 1. I. Baranov and V. V. Propoytina. *Aviatsionnaya Promyshlennost* 1953, 50; *Chem. Zvezda* 1954, 11, 1365. — Spring wire from Mn steel contg. 0.8-0.7% C and 0.9-1.2% Mn, when quenched in oil and annealed 8-10 min. in a salt-peter bath at 375°, possessed greater durability than wire from the Cr-V steel 50 Ch-A.

M. G. Miron

ASIM-5LA METALLURGICAL LITERATURE CLASSIFICATION

100000 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

100000 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

PROPASTINA, V.V.

Effect of heat treatment on the Elinvar alloy modulus of shear
and Curie point. Fiz. met. i metalloved. 6 no.6:1105-1109 '58.
(MIRA 12:1)

1. Penzenskiy industrial'nyy institut.
(Elinvar--Heat treatment) (Metallography) (Curie point)

AUTHOR: Propastina, V. V.

SOV/126-6-6-21/25

TITLE: On the Problem of the Effect of Heat Treatment on the Shear Modulus and the Curie Point of the Elinvar Alloy (K voprosu o vliyanii termicheskoy obrabotki na modul' sdviga i tochku kyuri splava elinvar)

PERIODICAL: Fizika metallov i metallovedeniye, 1958, Vol 6, Nr 6, pp 1105-1109 (USSR)

ABSTRACT: The authors studied the effect of heat treatment on the shear modulus and the Curie point of elinvar which contained carbides. The alloy composition is given in a table on p 1105. In order to transfer the carbide phase into solid solution, the samples were heated to 800, 900, 1000, 1100 and 1200°C and were then quenched in water. The carbides were separated out electrolytically from wires of 2 mm dia and were subjected to chemical, X-ray, crystallographic and magnetic analyses. The shear modulus and its temperature dependence were determined, using wires of 0.7 mm dia and 305 mm length, using the method of free torsional vibrations of small amplitude and an apparatus described by Postnikov (Ref.3). The temperature during measurements of shear modulus was controlled to within $\pm 0.25^\circ\text{C}$. The error in measurements of shear modulus between 20 to 600°C was $\pm 0.6\%$. The Curie

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SOV/126-6-6-21/25

On the Problem of the Effect of Heat Treatment on the Shear Modulus and the Curie Point of the Elinvar Alloy

point was found by means of an apparatus shown in Fig.1, which made it possible to carry out continuous measurement of magnetic properties as a function of temperature in an alternating magnetic field of up to 10 oersted intensity and 50 c/s frequency. The apparatus consisted of a resistance furnace 1, a cooling jacket 3, a solenoid 5 and two induction coils 4, wound in opposition. Temperature was measured by means of a copper-constantan thermocouple 6 to within $\pm 0.5^{\circ}\text{C}$. At a certain number of windings, the induction coils did not react to changes of the magnetic field of the solenoid. If a sample 2 was placed inside one of these coils a differential emf was produced which could be measured by means of a microammeter. The deflection of the microammeter was proportional to magnetization. At the Curie point the microammeter pointer indicated zero magnetization. Elinvar contained 12.1% of carbides in its non-hardened state. These carbides were distributed along the grain boundaries and inside separate grains. Analysis of the electrolytically separated carbides showed that the non-ferromagnetic trigonal

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SOV/126-6-6-21/25

On the Problem of the Effect of Heat Treatment on the Shear Modulus and the Curie Point of the Elinvar Alloy

carbide of the (Fe,Cr,W,Mn) C_3 type has the following lattice parameters: $a = 13.978$ and $c = 4.505$ kX. With increase of the hardening temperature, the lattice parameters of carbides and their chemical composition are not affected, but the preparation of free carbides decreases (Fig.2). When 5% (of the total of 12%) of carbides are dissolved in the solid solution by increasing the hardening temperature, magnetization of the alloy decreases by 50% (Fig.3). Fig.4 shows that increase of the hardening temperature increases the parameters of the solid solution of the alloy and decreases its Curie point (Fig.6). A decrease of the preparation of free carbide phase decreases also shear modulus of the alloy (Fig.5); when the free carbide content falls from 12.1% to zero, shear modulus decreases by 26%. The observed effects are due to the fact that increase of the hardening temperature increases the solubility of carbides, and therefore the amount of carbide present as a separate phase decreases. There are

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SOV/126-6-6-21/25

On the Problem of the Effect of Heat Treatment on the Shear Modulus
and the Curie Point of the Elinvar Alloy

6 figures, 1 table and 8 references; 2 of the references
are Soviet, 4 German and 2 French.

ASSOCIATION: Penzenskiy industrial'nyy institut (Penza
Industrial Institute)

SUBMITTED: March 15, 1957 and after revision, August 28, 1957.

Card 4/4

PROPEKHIN, N.A., mayor tekhnicheskoy sluzhby

With a high sense of responsibility. Vest.Vozd.Fl. no.6:
67-70 Je '60. (MIRA 13:7)
(Airplanes--Maintenance and repair)

Pr. 13. *Acad. Sci. U.R.S.S., 1941, 81, 907-908.*
Distribution of indium in Transbaikial. N. M. Prosenko (*Compt. rend. Acad. Sci. U.R.S.S., 1941, 81, 907-908*).—The geochemistry of the Transbaikial region is discussed with particular reference to the occurrence of In. In is usually conc. in polymetallic deposits, but is also present in many Sn and W deposits. Sphalerites are a frequent source of In, and minerals in the Au area of the region often contain it.
A. J. M.

<p>PROKOPENKO, V. G.</p> <p>ca</p> <p>Influence of the endotoxins of the tuberculosis bacillus on the oxidation processes of lung tissue. N. E. Prokopenko. Zhur. Mikrobiol., Epidemiol., Immunobiol. 1942, No. 1/2, 150-3. -- Endotoxins of tuberculosis bacilli suppress the lung-tissue respiration by 10-15% and lower the glycolytic activity by 30-50%. The aerobic phase of the process is affected but little, while the anaerobic phase is seriously affected. G. M. Kozulano</p> <p>11c</p>	
<p>ASS-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>	
<p>GROUPS</p> <p>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100</p>	<p>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100</p>

METALLURGICAL LITERATURE CLASSIFICATION																									
SUBJECT													CLASSIFICATION												
SUBJECT													CLASSIFICATION												
<p>Separating compounds of rare earth metals from lovchorite. I. N. Zaimovskii and P. I. Prusheva. Russ 41,511, Feb. 28, 1935. Lovchorite is FeO with acid, and the soln. treated with NH_4OH to pH 4.4 to ppt. Ti compounds, sepd. from the ppt., treated with NH_4OH to pH 6.2 to ppt. Fe and Al, sepd. from the ppt., and finally treated with NH_4OH again to ppt. the rare earth compounds.</p>																									

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CA

PROCESSING AND PROPERTY NOTES

Separating compounds of rare earth metals from lo-
chovite. I. N. Zakharski and P. I. Protopopov. Russ.
41,511, Feb. 28, 1935. Lovchorite is titd. with acid,
and the soln. treated with NH_4OH to pH 4.4 to ppt. Ti
compds., sepd. from the ppt., treated with NH_4OH to
pH 6.2 to ppt. Fe and Al, sepd. from the ppt., and
finally treated with NH_4OH again to ppt. the rare earth
compds.

ASH-31A METALLURGICAL LITERATURE CLASSIFICATION

PROPESCU, E. : STANCU, T.

Combating erosion in vineyards by agrotechnical measures in the Dragasani Experimental
Viticultural Station in the region of Pitesti. P. 1503
Vol 5, No 10, Octpber 1955

SOURCE: East European Accessions Lists (EEAL) Library of congress

Vol. 5, no. 12, Decmeber 1956

PRORESHNAYA, T.I.; MIROSHNICHENKO, M.I.

Results of serological examination for Q fever among various
population groups of the Kirghiz S.S.R. Zhur.mikrobiol., epid.
1 immun. 42 no.10:139 0 '65.

(MIRA 18:11)

1. Kirgizskiy meditsinskiy institut i Respublikanskaya sanitarno-
epidemiologicheskaya stantsiya. Submitted January 22, 1965.

PROPESHNAYA, T.L.

Isolation of Rickettsia burneti from the bone marrow of guinea
pigs in experimental inoculation. Vop.virus. 7 no.6:745 N-D
'62. (MIRA 16:4)

1. Kirgizskiy meditsinskiy institut.
(RICKETTSIA) (MARROW)

PROPESHNAYA, T.L.; RAPOPORT, L.P.; YEVDOSHENKO, V.G.; KICHATOV, E.A.

Data for a study of natural foci of Q fever in Kirghizistan.
Zhur.mikrobiol.epid.i immun. 31 no.9:32-37 S '60. (MIRA 13:11)

1. Iz Kirgizskogo instituta epidemiologii, mikrobiologii i gigiyeny
i Kirgizskoy protivochumnoy stantsii.
(KIRGHIZISTAN--Q FEVER)

MIKHAYLOV, Igor' Vasil'yevich; PROPOSHIN, Aleksandr Il'ich;
MURCHIN, R.M., red.

[Condensers] Kondensatory. Moskva, Energiia, 1965. 31 p.
(Massovaia radiobiblioteka. Spravochnaia seriia, no.573)
(HIRA 18:4)

SHNYFIS, I.I., inzh.; PROPOSHIN, A.I., tekhnik

Attachment to the GIP-1 device for tuning video amplifiers in the low-frequency region. Vest. svyazi 20 no.9:12 S'60. (MIRA 13:10)

1. Moskovskiy televisionnyy tsentr (for Shnyfis).
(Television--Equipment and supplies) (Electronic instruments)

L 18852-63 EWT(d)/FCC(w)/BDS AFFTC/ASD/ESD-3/APGC/IJP(C) Pg-4/
Pk-4/Pl-4/Po-4/Pq-4 GG/BC

ACCESSION NR: AP3003738

S/0103/63/024/007/0912/0920

81
80

AUTHOR: Propoy, A. I. (Moscow)

160
TITLE: Application of linear programing methods for synthesizing sampled data automatic systems

SOURCE: Avtomatika i telemekhanika, v. 24, no. 7, 1963, 912-920

TOPIC TAGS: linear programing, sampling automatic system, automatic system

ABSTRACT: A new approach to synthesizing sampled-data automatic systems ^Q was suggested by Ya. Z. Tsy*pkina (Izv. AN SSSR, Otd. t. n., Energetika i avtomatika, no. 4, 1960). It uses the impulse function (reaction to an impulse) of the controlled system as a characteristic of the system. The present article considers linear sampling systems with a modulus-constrained control; the systems are optimal with respect to the minimum area of the transient and have no overcontrol. It is pointed out that determining the optimum control under the

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L 18852-63

ACCESSION NR: AP3003738

above conditions is a linear programming problem. Use of the linear-programing methods is illustrated by an example. Selection of quality criterion is discussed: The linear criterion with additional constraints imposed on the controlled-system output is recommended. Two methods of realization of the optimum control in a sampling system are held possible: (1) a corrector with an appropriate program (transfer function) is introduced into the closed control loop; (2) a computer is inserted into the control loop (a better solution). It is claimed that, unlike dynamic-programing methods, the linear-programing methods lend themselves easily to digital-computer techniques. "In conclusion, the author wishes to thank Ya. Z. Tsy*pkín for the topic of and attention to this work." Orig. art. has: 5 figures, 16 formulas, and 1 table.

ASSOCIATION: none

SUBMITTED: 24Sep62

DATE ACQ: 02Aug63

ENCL: 00

SUB CODE: IE

NO REF SOV: 005

OTHER: 003

Card 2/2

ACC NR: AP7004245 SOURCE CODE: UR/0103/67/000/001/0122/0132

AUTHOR: Devyaterikov, I.P.^(Moscow); Propoy, A.I.^(Moscow); Tsypkin, Ya.Z.^(Moscow)

ORG: none

TITLE: On recurrence algorithms for teaching pattern recognition

SOURCE: Avtomatika i telemekhanika, no. 1, 1967, 122-132

TOPIC TAGS: pattern recognition, learning system, stochastic PROCESS, approximation method, ~~teaching~~ algorithm, AUTOMATIC MACHINE TEACHING

ABSTRACT: It is pointed out that many articles have been published recently in which particular algorithms for teaching pattern recognition to automata and schemes for their realization have been proposed, but a more general approach to the solution of this kind of problems is necessary. A general approach to deriving recurrence algorithms for teaching pattern recognition to automata is presented, utilizing the results of Ya. L. Tsypkin (Avtomatiki i telemekhanika, v. 26, no. 11, 1965, 1947-1950). The separating function $Y = f(x)$ is approximated by a finite sum where $\{\phi_v(x)\}$ are linearly independent functions and C_v are unknown coefficients. The problem of determining the $f(x)$ is reduced to the minimization of a certain functional which is taken as the mathematical expectation of function $F(f(x) - f(x))$. Finally, the problem is reduced to the solution of a certain regression equation. Two algorithms for

Card 1/2 UDC: 62-50

ACC NR: AP7004245

$$\hat{f}(x) = \sum_{v=1}^N c_v \varphi_v(x) = c^T \varphi(x),$$

(1)

solving this equation (in the deterministic case when the explicit form of the functional is known and in the probabilistic case when the mathematical expectation of the functional gradient is not known) are presented. The conditions under which the second algorithm is convergent are established. It is shown how particular algorithms derived by various authors can be obtained as particular cases of general algorithms. A comparative analysis of derived and known algorithms is made. A second approach in deriving a teaching algorithm based not on the approximation of a separating function, but on the approximation of its sign is considered. A general recurrence algorithm is derived and compared with the known algorithms developed by various authors. [LK]

SUB CODE: 12,4/SUBM DATE: 06Jul66/ ORIG REF: 011/ OTH REF: 009/
 ATD PRESS: 5114

Cord 2/2

PROPOY, A.I. (Moskva)

Use of linear programming techniques for synthesis of sampled-data
systems. Avtom. i telem. 24 no.7:912-920 J1 '63. (MIRA 16:7)
(Automatic control)

PROPOY, A.I.

A problem of optimum discrete control. Dokl. AN SSSR 159 no.6:1232-1235 D '64
(MIRA 18:1)

1. Institut avtomatiki i telemekhaniki AN SSSR. Predstavleno akademikom B.N. Petrovym.

L 2588-66 EWT(d)/EPF(u)-2/EWP(v)/EWP(k)/EWP(h)/EWP(l) IJP(s) WW/BC
ACCESSION NR: AP5019399 UR/0103/65/026/007/1177/1187
62-505.7

AUTHOR: Propoy, A. I. (Moscow)

TITLE: Principle of maximum in discrete control systems 9,55

SOURCE: Avtomatika i telemekhanika, v. 26, no. 7, 1965, 1177-1187

TOPIC TAGS: automatic control theory 14

ABSTRACT: Conditions of optimality -- necessary and in some cases also sufficient -- are formulated for one problem of optimal discrete control, the so-called problem with a free right-hand end of trajectory. These conditions can be regarded as an extension of the Pontryagin maximum principle over discrete control processes. On the other hand, these conditions are basic in the application of the mathematical programming to the problems of optimal discrete control. These conditions reduce the solution of an initial N-step problem to a successive solution of N single-step subproblems interconnected by simple

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L 2588-66

ACCESSION NR: AP5019399

relations; thus, the conditions actually represent a decomposition principle (in the mathematical programming sense). The fundamental problem is formulated as follows: For a given initial state $x(0) = a$, find such an admissible control $\{u(k)\}$

which would maximize the process quality $J(N) = \sum_{k=0}^{N-1} \varphi(x(k), u(k))$. The control

process is described by a system of difference equations of this form: $x(k+1) = f(x(k), u(k))$ ($k = 0, 1, 2, \dots, N-1$). "The author wishes to thank Ya. Z. Tsypkin for a useful discussion." Orig. art. has: 63 formulas.

ASSOCIATION: none

SUBMITTED: 29Sep64

ENCL: 00

SUB CODE: IE

NO REF SOV: 006

OTHER: 005

Card

2/2

1 2914/ 65 LPP(n)-2/EWT(d)/ENP(L) Pg-4/Pk-4/P1-4/PO-4/Pq-4/Pu-4
 1 P(c) BC/WW

ACCESSION NR: AP5001975

S/0020/64/159/006/1232/1235

AUTHOR: Propoy, A. I.

50

49

B

TITLE: One problem of optimal discrete control

SOURCE: AN SSSR. Doklady, v. 159, no. 6, 1964, 1232-1235

TOPIC TAGS: optimal automatic control, automatic control, automatic control design, automatic control system, automatic control theory

ABSTRACT: Necessary and sufficient conditions for optimality and an algorithm for optimum control are determined for a discrete problem of optimization of the final state. The Pontryagin maximum principle is extended over this type of problem. The proof is based on reducing the initial multistep problem to a mathematical-programing problem and considering a conjugate problem. The latter disintegrates into single-step problems with simple relations between them. Problem 1: for a specified initial state $x(0)$, an acceptable control $\{u(0), \dots$

Card 1/2

L 29144-65

ACCESSION NR: AP5001975

$u(N-1)$ is sought which transfers $x(0)$ into such a point X for which the functional $J = F(x(N))$, where N is the number of steps, reaches its extremum. Problem 2: an element is sought, from among $x \in R_n(x(0))$ elements, for which $F(x)$ is minimum. Problem 3: find $u \in U$ for which $K(p, u) = \sum_{i=1}^n p_i q_i(u)$ is maximum. Orig. art. has: 16 formulas.

ASSOCIATION: Institut avtomatiki i telemekhaniki AN SSSR (Institute of Automation and Telemechanics, AN SSSR)

SUBMITTED: 12 May 64

ENCL: 00

SUB CODE: IE, MA

NO REF SOV: 003

OTHER: 000

Card 2/2

AUTHORS: Golodnikov, G. V., Dolgov, B. N., SOV/79-28-8-21/66
Propp, L. N.

TITLE: Catalytic Synthesis of Ketones From a Mixture of n-Butyric Acid and Ethyl Alcohol (Kataliticheskoye polucheniye ketonov iz smesi n.-maslyanoy kisloty i etilovogo spirta)

PERIODICAL: Zhurnal obshchey khimii, 1958, Vol. 28, Nr 8, pp. 2097 - 2099 (USSR)

ABSTRACT: The authors showed already in the previous paper (Ref 1) that a methyl-propylketone and besides this symmetrical ketones, i.e. acetone and dipropyl ketone, are formed in the case of passing of a mixture of acetic acid and n-butyl alcohol over a Cr-Mn catalyst. The suggested reaction scheme is based upon a dissociation of the primarily formed ester, of butyl acetate into aldehydes, their aldol-condensation and the further transformation of aldol into methyl-propyl ketone. The present paper is a continuation of the experiments which try to synthesize mixed ketones from mixtures of acids and alcohols. A mixture of ethyl alcohol and n-butyric acid was chosen. This mixture is interesting since the assumed

Card 1/3

Catalytic Synthesis of Ketones From a Mixture of
n-Butyric Acid and Ethyl Alcohol

SOV/79-28-6-21/66

intermediate product formed in the ketone formation, the ethyl butyrate is metameric to the butyl acetate which for its part represents an intermediate product which was formed in the ketone formation of the mixture of acetic acid n.-butyl alcohol. Thus the transformations of these esters which are in the metamerismic ratio are bound to lead to one and the same aldehydes, i.e. to the acetic- and butyric aldehyde. Therefore the formation of the same ketones, i.e. of methyl-propyl ketone, acetone, and dipropyl ketone observed in the reaction confirms to a certain extent the correctness of the suggested mechanism of the ketonization of the mixtures of acids and primary alcohols. The formation of a mixed ketone is demonstrated in the given reaction scheme, where attention must be paid to R and R' of both mixtures. The conditions and results of the experiments are given in tables 1,2,3, the properties of the ketones in table 4. Cr-Mn catalyst was used as a catalyst in this work. There are 4 tables and 4 references, which are Soviet.

Card 2/3

Analytic Synthesis of Ketones From a Mixture of
Acetic Acid and Ethyl Alcohol

SOV/79-28-8-21/66

ASSOCIATION: Leningradskiy gosudarstvennyy universitet (Leningrad State
University)

SUBMITTED: July 2, 1957

Card 3/3

ARBUZOVA, I.A.; KOSTIKOV, R.R.; PROPP, L.N.

Polymerization of divinylbenzal. Vysokom. soed. 2 no.9:1402-1404
S '60. (MIRA 13:9)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR.
(Vinyl compounds) (Polymerization)

GOLODNIKOV, G.V.;DOLGOV, B.N.;PROPP, L.N.

Catalytic preparation of ketones from a mixture of η -butyric
acid and ethyl alcohol. Zhur.ob. khim. 28 no. 8:2097-2099 Ag '58.
(MIRA 11:10)

1. Leningradskiy gosudarstvennyy universitet.
(Butyric acid)
(Ethyl alcohol)

PROPP, M.V.

Use of statistical estimates in studying the ecology of sublittoral
Invertebrates. Trudy IMBI no.6:76-87 '64.

(MIRA 17:11)

1. Laboratoriya bentosa Murmanakogo morskogo biologicheskogo
instituta.

KRATIN, Yu.G.; PROPP, M.V.

Effect of estrogens on the electric activity of the hypothalamus and cerebral cortex of young and old female rabbits. Fiziol. zhur. 51 no.1:37-46 Ja '65. (MIRA 18:7)

1. Institut fiziologii imeni Pavlova AN SSSR, Leningrad.

PROPP, M.V.

Upper sublittoral of the western Murmansk Coast near the Aynov Islands; results of submarine diving with aqualungs. Trudy MMBI no.5:57-60 '64. (MIRA 17:4)

1. Laboratoriya gidrobiologii (zav.-M.M.Kamshilov) Murmanskogo morskogo biologicheskogo instituta.

PROPP, M.V.; IOGANSEN, V.S.; KOTLETISOV, B.N.

Submarine motion picture camera for research work. Okeanolo-
giia 2 no.6:1110-1111 '62. (MIRA 17:2)

PROPP, M.V.; SAMTSOVA, A.V.

Changes in the conditioned reflex activity in the aging process in humans and the effect on these changes of some pharmacological and hormonal factors. Nauch. soob. Inst. fiziol. AN SSSR no.1:70-71
'59. (MIRA 14:10)

1. Laboratoriya vozrastnoy fiziologii i patologii cheloveka (zav. -
V.G.Baranov) Instituta fiziologii imeni Pavlova AN SSSR.
(AGING) (CONDITIONED RESPONSE)

PROPP, M. V., kand. biol. nauk

Changes in the conditioned reflexes and sexual cycle of rats of various
ages under the influence of strong stimuli. Probl. endok. i gorm.
no.6:3-7 '61. (MIRA 14:12)

1. Iz Leningradskogo instituta fiziologii imeni I. P. Pavlova
(rukovoditel' - deystvitel'nyy chlen AMN SSSR prof. V. G. Baranov)
AN SSSR.

(CONDITIONED RESPONSE) (SEX(BIOLOGY))

PROPP, M.V.

Some results of the study of the sublittoral of the Eastern Murman in the Dal'nezelenetskaya Bay region with the help of aqualungs. Trudy MMBI no.4:59-63 '62. (MIRA 15:11)

1. Laboratoriya gidrobiologii (zav. - M.M. Kamshilov)
Murmanskogo morskogo biologicheskogo instituta.
(Zelenetskaya Bay--Marine biology)

NASLEDOVA, I.D.; PROPP, M.V.

Effect of ACTH and cortisone on survival and morphological changes of the adrenal cortex in white rats of various ages during radiation sickness. Nauch. soob. Inst. fiziol. AN SSSR no.1:170-171 '59. (MIRA 14:10)

1. Laboratoriya vozrastnoy fiziologii i patologii cheloveka
(zav. - V.G. Baranov) Instituta fiziologii imeni Pavlova AN SSSR.
(ACTH) (CORTISONE) (ADRENAL CORTEX)
(RADIATION SICKNESS)

PROPP, H.V.

Effect of ACTH and cortisone on the course and outcome of radiation sickness in white rats of various ages. Med.rad. 4 no.6: 61-64 Je '59. (MIRA 12:8)

1. Iz laboratorii vozrastnoy fiziologii i patologii cheloveka (zav. - chlen-korrespondent AMN SSSR prof.V.G.Baranov) Instituta fiziologii imeni I.P.Pavlova (dir. - akademik K.H.Bykov [deceased]) AN SSSR.

(ACTH, eff.
on exper. radiation sickness in white rats
of various ages (Rus))

(CORTISONE, eff.
same)

(ROENTGEN RAYS, eff.
eff. of ACTH & cortisone on exper. radiation
sickness in white rats of various ages (Rus))

(AGING, eff.
on exper. radiation sickness reactivity to
ACTH & cortisone ther. in white rats (Rus))

PROPP, R.M.

Malignization of lingual goiter. Khirurgiia 40 no.12:122-123
D '64. (MIRA 18:3)

1. Moskovskiy gorodskoy onkologicheskii dispanser (glavnyy vrach
P.Ye. Vakkhevich, nauchnyy rukovoditel' - dotsent B.V. Milcnov).

PROREKHIN, V.P., inzh.

Searching for underground water to irrigate pastures in the
Syrian Desert. Trudy Giprovdokheza no.22:145-151 '63.

(MIRA 17:8)

PRORESHNAYA, T.L.; RAPOPORT, L.P.

Data on the study of natural foci of tick-borne rickettsial diseases
in southwestern Kirghizia. Zhur. mikrobiol., epid. i immunit. 40 no. 12 56-58
D '63. (MIRA 17 22)

1. Iz Kirgizskogo meditsinskogo instituta i Kirgizskoy protivochumnyy
stantsii.

PROKESHNAYA, T.L.; MISHCHENKO, N.K.

Studies on a focus of Q fever in the Issyk-Kul District in Kirghizistan.
Zhur.mikrobiol.enid. i immun. 29 no.2:54-59 P '58. (MIRA 11:4)

1. Iz Instituta epidemiologii i mikrobiologii imeni Gamalei AMN SSSR.
(Q FEVER, epidemiology,
in Russia (Rus)

PRORESHNAYA, T.L.

RICKETTSIOSIS

"Tick-Borne Rickettsiosis in Oshskaya Oblast", by T.L.Proreshnaya, Sovetskoye Zdravookhraneniye Kirgizii, No 3, May-June 1957, pp 61-63.

While doing field-research in a focus of Q fever infection in the southern Kirgiz SSR, the author observed a case of Rickettsiosis sibirica. Until that time there were no data available on this disease in that region although in Northern Kirgiz, strains of Rickettsiosis sibirica were extracted from ticks of both *Dermacentor marginatus* and *Haemaphysalis punctata* (in 1944-1945).

Although the patient in question was previously diagnosed as suffering from "malaria", fixation of the complement (antigen DS) determined the nature of the disease, and the past history of the case helped to establish the anamnesis. The author's observations and experiments performed with ticks are described in detail.

The author concludes that there are some indications of the presence of a natural focus of infection endemic rickettsiosis in the southern part of Kirgiz SSR.

Card 1/1

- 63 -

PROPIRNYI, N., Col

Listed as author of article, "The Successes of Soviet Radiofication," which appeared in Voyennyy Svyazist, No 7, 1954. Sovetskaya Armiya, Group of Soviet Forces, Germany, 25 Jul 54

SO: SUM 291, 2 Dec 1954

PROPISIL, V.

PROPISIL, V. Waste water from malt factories. p. 193

Vol. 2, no. 9, Sept. 1956

KVASNY PRUMYSL

TECHNOLOGY

Praha, Czechoslovakia

So: East European Accession Vol. 6, no. 2, 1957

PROPKOP'YEVA, M. F.

Jan 49

USSR/Chemistry - Chloral
Chemistry - Viscometric Analysis

"Viscosity of Systems of Chloral With Alcohols." V. V. Udovenko, Ye. I. Kalavanovskaya,
M. F. Propkon'yeva, Lab of Physicochem, Can Asiatic State U, 3 1/4 pp

"Zhur Obshch Khim" Vol XIX, No 1

Tabular studies of viscosities and densities of the system of chloral and methyl alcohol at 40, 60, and 75° and the system of chloral and isoamyl alcohol at 40, 60, and 80° show maximum viscosity of the systems is invariably affected by the alcohol, regardless of the value for the viscosity of the chloral. Submitted 29 Sep 47.

58/49T24

PROPOPOV, S.P.

Physiologic characteristics of novocaine nerve block from the viewpoint
of Vvedenskii's theory on parabiosis. Vest. khir. 71 no.2:73-74 1951.
(CML 20:8)

S/190/60/002/009/022/023/XX
B004/B056

53830

2209, 1274, 2103

AUTHORS: Arbuzova, I. A., Kostikov, R. R., Propp, L. N.
TITLE: The Polymerization of Divinyl Benzal
PERIODICAL: Vysokomolekulyarnyye soyedineniya, 1960, Vol. 2, No. 9,
pp. 1402-1404

TEXT: I. A. Arbuzova, together with K. Sultanov has already carried out the polymerization of divinyl acetals (Ref. 4). It was the purpose of the present work to carry on with studying this reaction and producing a new group of 1,6-dien-monomers, which polymerize under ring closure. The authors proceeded from divinyl benzal. They synthesized the di- β -chloroethylbenzal by heating ethylene chlorohydrin by means of benzaldehyde in benzene in the presence of HCl as a catalyst. By reaction of the di- β -chloroethylbenzal with dry KOH, they obtained the divinylbenzal. The polymerization of this compound was carried out in the presence of tert-butyl peroxide of azo-isobutyric acid-dinitril and irradiation by means of a ПРК-2 (PRK-2) mercury lamp at temperatures of between 20 and 145°C. The reaction lasted 20 to 240 hours. White powders, which were soluble in benzene,

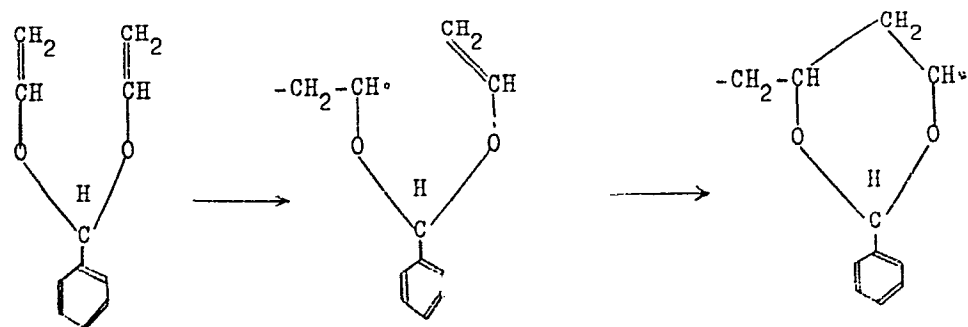
Card 1/3

85752

The Polymerization of Divinyl Benzal

S/190/60/002/009/022/023/XX
B004/B056

chloroform, dioxane, pyridine, and dimethylformamide were obtained. The molecular weight determined cryoscopically was between 1280 and 3550. By means of the bromine-bromate method, the number of the remaining double bonds was found to be 3-5%. As the physical properties exclude a three-dimensional structure, the authors assume ring closure according to the following scheme:



Card 2/3

The Polymerization of Divinyl Benzol

S/190/60/002/009/022/023/XX
B004/B056

There are 2 tables and 4 references: 1 Soviet and 5 US.

ASSOCIATION: Institut vysokomolekulyarnykh soyedineniy AN SSSR
(Institute of High-molecular Compounds of the AS USSR)

SUBMITTED: April 10, 1960

Card 3/3

PROPP, M. V.

Effect of small doses of bromine and caffeine on vascular reflexes in aging human subjects. Zhur. vys. nerv. deiat. 9 no.2:191-196 Mr-Ap '59. (MIRA 12:7)

1. Laboratoriya vozrastnoy fiziologii i patologii cheloveka Instituta fiziologii im. I.P. Pavlova Akademii nauk SSSR.

(BROMIDES, eff.

on conditioned plethysmographic reactions in late middle age (Rus))

(CAFFEINE, eff.

same)

(PLETHYSMOGRAPHY,

conditioned plethysmographic reactions in late middle age, eff. of bromides & caffeine (Rus))

(REFLEX, CONDITIONED,

same)

PROPP, M. V.

Dissertation: "The Modification of Vascular Conditioned and Unconditioned Reflexes in Functional and Organic Diseases of the Central Nervous System." Cand Biol Sci, Inst of Physiology imeni I. P. Pavlov, Acad Sci USSR, Moscow, Oct-Dec 53. (Vestnik Akademii Nauk, Moscow, Jun 54)

SC: SUM 318, 23 Dec. 1954

PROPP, R.M. (Moskva)

So-called benign metastatic struma. Probl. endok. 1 gorm. 5 no.2:
(MIRA 12:7)
73-79 Mr-Apr '59.

1. Iz Moskovskoy gorodskoy onkologicheskoy bol'nitsy (glavnyy vrach -
P. Ye. Vakkhevich).
(THYROID GLAND, neoplasms,
benign metastatic strumigenous (Bis))

PROPP, R.M.

Chronic thyroiditis [with summary in English]. Khirurgiya 33 no.6:
42-49 Je '57. (MIRA 10:12)

1. Iz Moskovskoy gorodskoy onkologicheskoy bol'nitsy (glavnyy vrach
P.Ye.Vakhevich, nauchnyy rukovoditel' - prof. F.M.Lempert)
(THYROIDITIS
Hashimoto's dis. & Riedel's struma, review)

PROPP, R.M.

Neoplasma of the main and abberant thyroids. Chirurgia 35 no. 11:105-
112 N '59. (MIRA 14:1)

(THYROID GLAND—TUMORS)

Reel #448

Propp R.M.

END

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